



## Content of ensuring the integration of pedagogical and information technologies in higher pedagogical education

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ABSTRACT

In this article, the content, legislative basis and current situation of ensuring the integration of pedagogical and information technologies in improving the methodological training of future teachers and thereby developing a potential pedagogue are researched.

**Keywords:**

methodical training, education, form, method, tool, integration, pedagogy.

**Introduction.** In modern education, special attention is paid to the integration of pedagogical opportunities and information technologies, and this is considered to be the most effective approach to improve the quality of education. For this purpose, it is becoming a priority to develop the competence of the graduates of higher pedagogical education, along with increasing their pedagogical knowledge and skills, to effectively use the possibilities of information technologies. Today, "the introduction of new state educational standards once again imposes demands on the teacher that significantly change professional activity and fill it with new content. Because these standards are based on a competent-active approach, they differ from their predecessors in that they are oriented not to the formation of knowledge, skills and qualifications, but to the formation of a person capable of continuous education, development of needs and abilities. Therefore, the increase in professional responsibilities of teachers and changes in their role in society require them to have the qualities of quick adaptation to rapid changes in the educational process, extreme activity, readiness for constant self-

development and independent learning, to be aware of modern approaches and technologies of teaching, and to be able to use them effectively [1,17]. Therefore, one of the urgent tasks is to ensure the integration of competence based on pedagogical and information technologies in improving the methodological training of future teachers.

Analysis of literature on the topic. Pedagogical scientist M. Tillashakhova believes that "when using information technologies in the educational process, we should teach students not only to see and accept information on the screen, but also to creatively participate in this process." Connecting the world of hidden possibilities associated with the didactic features of education directly with computer telecommunications has modern and promising goals in this field of education. As a didactic function, we understand the manifestation of the external properties of educational tools used for certain purposes in the educational process" [2,586]. It consists of their functions, role and importance in the educational process.

The use of an integrative approach and the use of information processing

technology in the development of methodological training of future teachers is a unique innovative approach in the field of pedagogy, with the help of which positive quality changes and high efficiency are achieved in the research process.

Research methodology. Before studying the content of providing the integration of pedagogical and information technologies, it is appropriate to consider the content and essence of the concepts of integration and integrative methodological framework. Integration (Lat. *integratio* — restoration, filling, taken from the word *integer* — whole) —

1) a concept that expresses the state of interdependence of some parts and functions of a system or organism and the process leading to such a state;

2) the process of rapprochement and interaction of sciences is accompanied by differentiation;

3) mutual coordination and unification of the economy of 2 or more countries[3,214]. Therefore, integration means the process of rapprochement and interaction of disciplines and their achievement of mutual harmony.

Also, the integrative approach is the process of determining the only correct conclusion based on the inextricable interdependence of the infinite number of small parts that make up the information, their integrity, unity. is to teach. It follows that the integrative approach is a complex and systematic approach to educational processes, systematic analysis, research methods and the use of induction and deduction methods of knowledge. At the same time, an integrative approach, looking at education and upbringing as a hierarchical system, guarantees positive results in conducting research on them. The educational process develops when the teacher evaluates the influence of the teacher on the students in a certain sequence and in a certain sequence with the help of teaching tools, and evaluates the educational result during the control process. Therefore, it is possible to achieve the quality of education through the development of future teachers on the basis of

pedagogical and information technologies. The integration of pedagogical and information technologies is a complex integrative process that includes the methods of problem analysis and planning, evaluation of the solution to the problem, and the methods of organizing activities covering all aspects of knowledge acquisition.

Analysis and results. Integrate - Latin "integer" - totality, "integerara" - filling, creating, restoring the totality. The problems of ensuring harmonies in educational content are also an area of integration. In education and training, it summarizes the formation of knowledge, concepts, skills and qualifications and makes them look like laws or rules.

The concept of integration is an important scientific term, which is considered a methodological tool for generalization, conclusions, because with its help, algorithms of general harmony between the contents of processes and events are created. Therefore, the process of integration in summarizing and supplementing the educational content of different subjects is always useful and helps to guarantee the achievement of the intended goal.

When setting educational goals based on the integration of pedagogical technologies and information communication technologies, it is recommended to take into account the following requirements:

1. The analysis of existing needs and problems serves as the main basis for goal setting, firstly, the initial opportunities, tools, and secondly, the student's personal knowledge reserves;

2. Goals should be relevant enough to solve important problems;

3. Goals should be complex, but realistic;

4. The goals should be clearly formulated (with the exact level of the desired result and the deadline for achieving it) (the easier it will be to determine their achievement).

5. Goals should be diagnostic, motivating, exhorting.

6. Objectives match the student's tasks. to be within the framework of near future development

7. The goals of the cooperative activity should be known to all its participants, understood and accepted by them (This requires the unity of collective activities and goals).

8. Smaller specific goals should be subordinated to larger and long-term goals and aspirations. These requirements appear as an important issue in ensuring the viability of educational goals[4,29].

Today, special attention is being paid to the creation of a new generation of educational literature - electronic educational and methodical literature. These, in turn, should reconsider the requirements placed on graduates of continuous education, not only to form and develop knowledge, skills and qualifications in subjects, but also to find a field that suits their interest, ability, talent, potential, ability and needs in the labor market based on the market economy and with strong competition. obtaining, requires the formation of skills to fully use the created modern technical conditions [5,29]. For this, future pedagogues should have modern knowledge and skills, in particular, integrated knowledge and skills based on pedagogical and information technologies.

The development of information and communication technologies has created an opportunity to create a single world educational space. The expansion of the possibilities of information technology increases the need to use it to achieve educational efficiency and improve the quality of education. This makes it possible to implement the principle of open education, which creates opportunities for lifelong learning and education, regardless of educational institution, teacher, or educational location. As a result, there is a need and an opportunity to create specialists who have the ability to work with information.

Modern information technologies are modern technologies that can be used on information, including computer technologies, the Internet, and multimedia. Education of

students and retraining of personnel on the basis of multimedia tools is one of the urgent issues of today. There are a number of advantages of teaching through such information technologies: there is a possibility of deeper and more perfect mastering of the given materials; the passion for close contact with new areas of learning will increase; as a result of the reduction of the training time, it is possible to save time, the acquired knowledge is stored in the memory of the future personnel for a long time, and it is possible to apply it in practice if necessary.

He should be ready to carry out pedagogical activities in educational institutions, "organize teaching of informatics and information technologies using educational programs and textbooks of different levels, know the methodical system and its constituent elements. In order to develop the methodical system of the teacher in the integration of pedagogical and information technologies, if the methodical system and its constituent elements are formed by the teacher in the mind of the students during each lesson of the specialty, a reflexive approach to the creation of the methodical system is formed in the student" [7,36]. Such a reflexive approach serves as a basis for improving the methodological training of future teachers.

It is also appropriate to take into account the main directions of the government's state policy in the field of informatization when improving the methodological training of future teachers based on the integration of pedagogical and information technologies. According to him:

- implementation of everyone's constitutional rights to freely receive and disseminate information, ensuring free use of information resources;

- creation of a single information space of the Republic of Uzbekistan based on information systems of state bodies, network and regional information systems, as well as information systems of legal entities and individuals;

- creating conditions for free use of international information networks and the Internet world information network;

- formation of state information resources, creation and development of information systems, ensuring their compatibility and interaction;

- organization of production of modern means of information technologies;

- to support the formation of the market of information resources, services and information technologies;

- stimulating the development of software products production;

- supporting and encouraging entrepreneurship, creating favorable conditions for attracting investments;

- consists of personnel training and improvement of their qualifications, stimulation of scientific research. Based on these priorities, the future teacher will need to develop his knowledge of information technologies and be able to integrate them with the knowledge and skills of his specialty. A pedagogue who is able to accomplish this integrative task can show high results in his pedagogical activity.

The strategic directions of education modernization reflected in the documents related to the educational system determine the need to direct the educational systems to ensure the quality of modern education by determining the results of their readiness in the form of the formation of general cultural competences and professional competences of graduates. The model of training a graduate of a higher educational institution is based on the competence approach, which combines the educational results of the graduate with the requirements of general academic subjects, as well as the professional qualification, and as a result, the training of the future informatics teacher should be carried out in the logic of the

competence approach and lead to the formation of professional competence.

In our country, the provision of information to the society is established by law. Article 4 of the Law of the Republic of Uzbekistan "On Information" clearly defines the state policy in the field of information. According to him, the state policy in the field of informatization is aimed at creating a national information system taking into account modern world principles of development and improvement of information resources, information technologies and information systems.

Also, in higher pedagogical education, necessary measures are being taken for students to fully use information technologies and information-resource opportunities. In this regard, in accordance with Article 4 of the Law "On Information-Library Activities", creating conditions for satisfying the intellectual, spiritual, moral, cultural and educational needs of users, assisting in the restoration and further development of national culture, historical, spiritual and cultural heritage of the people of Uzbekistan preservation of heritage was defined as the main tasks of the information-library activity. The proof of these ideas is the fact that special emphasis is placed on teaching modern interactive methods using the possibilities of information technologies in higher pedagogical educational institutions.

The Regulation on the preparation of information resources and their dissemination in the networks of the Republic of Uzbekistan, including the Internet, approved by the Decision of the Cabinet of Ministers of the Republic of Uzbekistan, establishes a number of rules on the prohibition of the distribution of any information on the Internet, and separate rules for the use of information resources specified in the means of information exchange a rule has been established that the connection of state information systems and networks is carried out with the permission of the Cabinet of Ministers of the Republic of Uzbekistan after certification in accordance with information security requirements. It can be seen that information systems connecting to

Internet networks are checked to what extent they respond to information security.

Resolution PF-5349 of the President of the Republic of Uzbekistan on February 19, 2018 "On measures to further improve the field of information technologies and communications" was adopted. According to the decision, a number of systemic problems and shortcomings in the field of management and introduction of information technologies and communications prevent the rapid development of this field and the provision of quality information services. In particular, it was emphasized that the weak organization of information security and information protection in state information systems and resources increases the possibility of unauthorized use of information, violation of the integrity and confidentiality of databases.

**Conclusion:** Therefore, in today's information society, along with training future teachers to fully use the possibilities of information technology, protecting them from information threats, and forming a culture of information consumption so that they do not face various information attacks, is becoming urgent. It is necessary to pay attention to the development of information culture and to form immunity in improving the methodological preparation of future teachers based on pedagogical and information technology.

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